

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460



OFFICE OF
PREVENTION, PESTICIDES AND TOXIC
SUBSTANCES

Date: July 28, 2005

125619
128993

COVER MEMO

SUBJECT: Section 18 Ecological Risk Assessments for the Control of Asian Rust on Soybeans using Metconazole and Cyproconazole

FROM: Holly Galavotti, Environmental Protection Specialist
Kevin Costello, Acting Branch Chief, ERB 1
Environmental Fate and Effects Division (7507C)

Holly Galavotti 7/28/05
Kevin Costello 7/28/05

TO: Carmen Rodia
Emergency Response and Minor Use Section
Registration Division (7505C)

Attached are the Ecological Risk Assessments for the emergency exemption Section 18 request to use the fungicides, metconazole and cyproconazole, to control Asian rust on soybeans throughout the United States. EFED has determined the potential risks based on the use of these pesticides.

Metconazole PC Code: 125619 Barcode: D318619

Application Rate: **Caramba 90SL**, 0.056 lb a.i./acre (9.6 fl oz ai/A), 2 applications; 7 to 21-day interval; both ground and aerial methods.

There are no *acute* Levels of Concern LOCs exceeded for mammals at the proposed maximum application rate. In addition, no mammalian chronic LOCs are exceeded for one application per year. However, *chronic* oral dose-based LOCs are exceeded for small (15 g) and medium (35 g) mammals consuming short grass after two applications per season. Consequently, there are potential endangered species concerns for mammals. There are no acute or chronic exceedances for birds at the proposed label rate. Chronic LOCs are exceeded for freshwater fish based on a full life cycle study. There are no LOCs exceeded for other aquatic organisms.

Alternative application rate: There are no chronic mammalian LOCs exceeded for **Caramba 90SL** at an application rate of 0.04 lb a.i./acre (6.83 fl oz ai/A), 2 applications; minimum 6-day interval; both ground and aerial methods.



Cyproconazole PC Code: 128993 Barcode: D318615

Application Rate: **Alto**, 0.026 lb ai/A (0.42 oz ai/A); 2 applications; 7-day interval; both ground and aerial methods.

Acute endangered and chronic LOCs are exceeded for birds. Consequently, there are potential endangered species concerns for birds based on the current maximum application rate. There are no acute or chronic exceedances for mammals or terrestrial plants. In addition, there were no exceedances for aquatic organisms.

Alternative application rate: There are no acute avian LOCs exceeded for **Alto** at an application rate of 0.020 lb a.i./acre (0.32 oz ai/A), 2 applications; 7-day interval; both ground and aerial methods. Because a NOAEC was not determined for the chronic avian study, an alternative application rate to avoid chronic avian risk is not proposed.

Summary of Risks for the use of Metconazole and Cyproconazole to control Asian Rust on Soybeans.					
	Acute Risk	Acute Restricted Use	Acute Endangered Species	Chronic Risk	Risk for Plants
Avians			Cyproconazole RQ = 0.12*	Cyproconazole RQ **	
Terrestrial Mammals				Metconazole RQ =1.17-1.36***	
Terrestrial Insects					
Terrestrial Plants- Seedling Emergence and Vegetative Vigor					
Freshwater Fish- Acute					
Freshwater Fish- Early Life Cycle					
Freshwater Fish- Full Life Cycle				Metconazole RQ =2.0-2.2	
Freshwater Invertebrates					
Freshwater Vascular - Plants	Risk not determined- no submitted toxicity study				
Freshwater Non-vascular plants (green algae)					
Estuarine/Marine Fish ¹		Metconazole Possible Risk	Metconazole Possible Risk		
Estuarine/Marine Invertebrates ¹					
Estuarine/marine Non- vascular plants	Risk not determined- no submitted toxicity study				

¹ Estuarine/Marine Toxicity data were not submitted for metconazole. Risk is estimated based on toxicity to similar conazole pesticides.

* Based on appl. rate of 0.026 lb ai/A and avian toxicity study (LD₅₀= 150 mg/kg bw; MRID 40607730)

** RQ not calculated because NOAEC was not established. Significant effects at all treatment levels.

However, LOAEC does exceed residue EEC in short grass (MRID 43287701)

*** Chronic exceedance for small (15g) to medium (35g) mammals whose diet consists of short grasses